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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,928	09/26/2003	Kouji Imai	21334-1259	8294

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EXAMINER	
CAZAN, LIVIUS RADU	
ART UNIT	**PAPER NUMBER**
3729	

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/671,928	IMAI, KOUJI	
	Examiner	Art Unit	
	Livius R. Cazan	3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,8,11,13,14 and 16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,8,11,13,14 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *02/16/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 5/23/2006 has been fully considered and made of record. The various objections as well as the rejections under 35 U.S.C. 112 have been overcome. Cancellation of claims 3-7, 9, 10, 12, and 15 is acknowledged.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 2, 8, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wigby (US4272879 to Wigby et al.) in view of Ota (JP9161938 to Yukio Ota).

a. Regarding claims 1, 2, and 14, Wigby discloses:

i. an anvil configured to support a collapsible terminal (see anvils 45 and 46 in Figs. 1-4, anvil 45 in Fig. 5, terminal having crimp tabs 7 and 9 in Fig. 1 for example);

ii. a crimper aligned with the anvil, and being movable toward and away from the anvil to crush and release a terminal (see crimp blades 39 and 40 in Fig. 1 for example)

iii. a guide member having an upwardly open guide groove provided close to the anvil and aligned therewith for supporting the component and guiding a conductive lead into the insertion hole in the terminal (see guide 42 in Figs. 1 and 2 for example);

iv. the guide member being linked via a link piece to a ram on which the crimper is mounted such that the guide member is caused to retreat from the elongate component upon the downward motion of the crimper, before the crimper abuts the terminal; see ln. 50 of col. 3 to ln. 11 of col. 4; see col. 4, lns. 40-47; in order to allow the various components to move relative to each other, they are actuated (and linked) by connected rods interconnected with cams; see *Howstuffworks "Inline Four-Cylinder Engine"* for a clear understanding of how connecting rod mechanisms operate. Since during the step shown in Fig. 2 the guide 42 moves away from the component (wire) and crimp blades 39 and 40 move downward, and since a connecting rod mechanism is employed, it is deemed inherent that some degree of movement of guide 42 away from the wire will occur as the crimp blades begin to descend.

v. wherein a terminal placed on an anvil and having a conductive lead inserted in an insertion hole of the terminal is crushed by a crimper, thereby terminating the conductive lead (see Fig. 2).

Wigby does not disclose a positioning plate for positioning the elongate component by abutting the tip thereof, the positioning plate having an escape groove for allowing movement of the conductive lead during termination thereof.

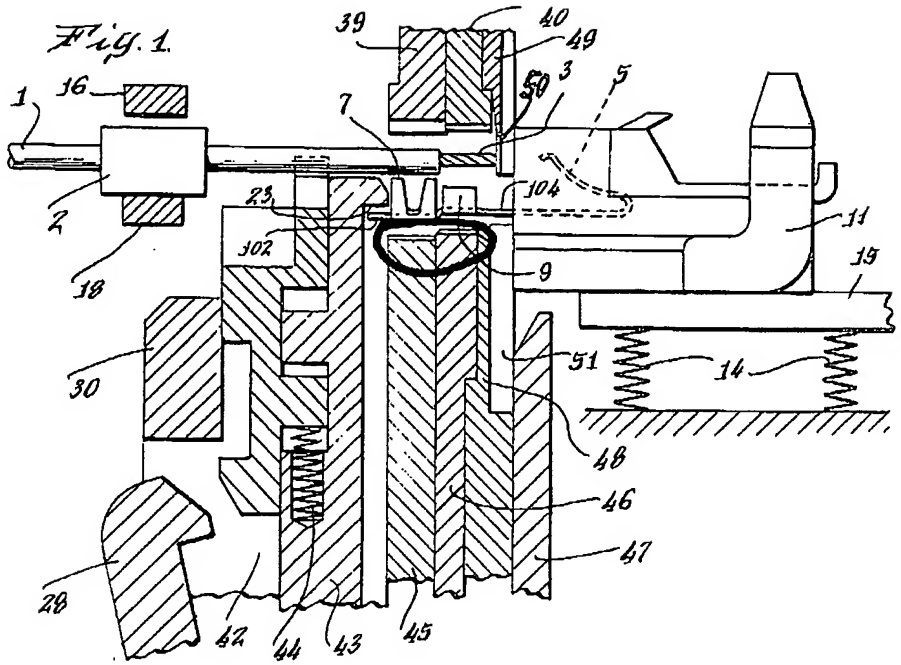
Ota teaches the concept of using a positioning plate (25 in Fig. 1) to allow the tip portion of a component (wire) to be positioned at a suitable position before

a crimping operation. The positioning plate has an escape groove (U-shaped opening; see Figs. 1 and 2) whereby the wire (11) can move during a crimping operation.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to provide the apparatus of Wigby with a positioning plate as recited in claim 1, in view of the teachings of Ota, in order to allow a component (wire) to be positioned at a suitable position.

b. Regarding claim 8, Wigby discloses an apparatus configured to allow insertion of a second conductor into a collapsible terminal disposed on an anvil in a direction perpendicular to a conductive lead. The collapsible terminal shown in Fig. 1 is disposed on an anvil in a direction perpendicular to a conductive lead (conductor 3). Furthermore, a second conductor *could* be inserted in the terminal, i.e. the apparatus *allows* the insertion of a second conductor.

c. Regarding claim 16, Wigby discloses a recess disposed in the anvil to retain a collapsible terminal and a crimper disposed on a vertical ram, aligned with the recess. See arcuate groove 62 in Fig. 5; note that both anvils 45 and 46 have such grooves; see circled area in the figure below. Crimping blades 39 and 40 in Fig. 1 are inherently mounted on some support which comprises the actuating means, i.e. the crimping blades are mounted on a vertical ram.



4. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wigby and Ota as applied to claim 1, in view of Baldyga (US5564613).

Wigby discloses the same invention as the applicant, except for a rail for guiding successive collapsible terminals mounted on a carrier strip onto an anvil wherein a carrier brake is mounted on the rail and biased into frictional contact with the carrier strip.

Baldyga teaches these limitations. See col. 2, lns. 50-55 as well as the image below.

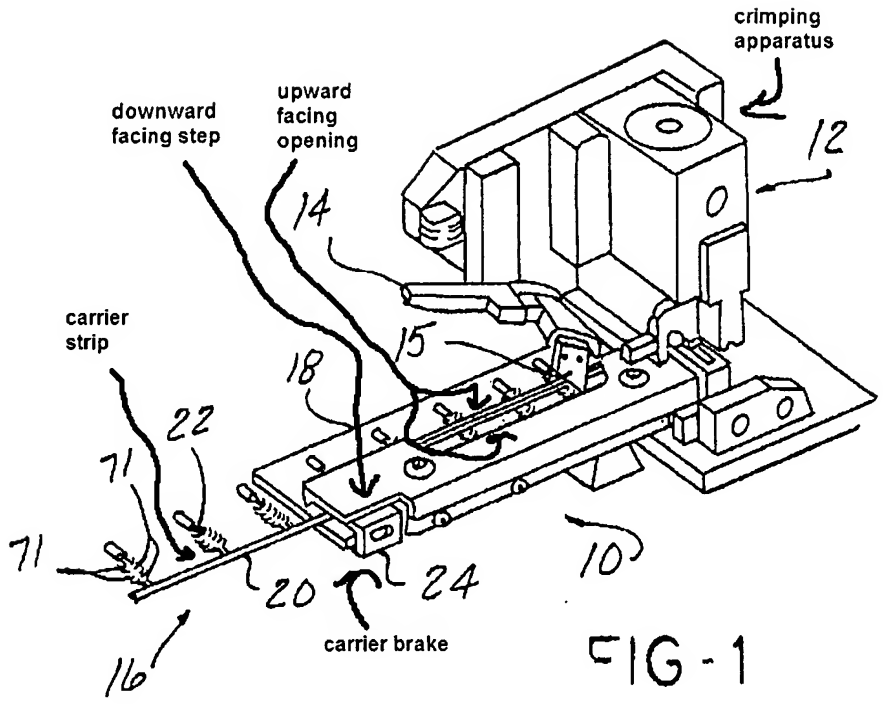


FIG - 1

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wigby, in view of the teachings of Baldyga, by providing a rail for guiding successive collapsible terminals mounted on a carrier strip onto an anvil and wherein a carrier brake is mounted on the rail and biased into frictional contact with the carrier strip, in order to provide an efficient means of supplying terminals to the crimping apparatus.

5. Claims 1, 2, 8, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nobuo (JP4112490U by Nobuo et al.) in view of Wigby and Ota.

a. Regarding claims 1, 2, and 14 Nobuo discloses:

i. an anvil (B in Figs. 1 and 2) configured to support a collapsible terminal (T in Figs 1 and 2);

ii. a crimper (D in Figs. 1 and 2) aligned with the anvil, and being movable toward and away from the anvil to crush and release a terminal

iii. a guide member (wire-gripping claws 21, Figs. 1 and 2) provided close to the anvil and aligned therewith for supporting the component and guiding a conductive lead into the insertion hole in the terminal;

iv. the guide member being linked via a link piece to a ram on which the crimper is mounted such that the guide member is caused to retreat from the elongate component upon the downward motion of the crimper, before the crimper abuts the terminal (see abstract; see Fig. 1)

v. wherein a terminal placed on an anvil and having a conductive lead inserted in an insertion hole of the terminal is crushed by a crimper, thereby terminating the conductive lead (see abstract; see Fig. 1).

Nobuo is silent as to whether or not the guide member has an upwardly open groove, and does not disclose a positioning plate for positioning the elongate component by abutting the tip thereof, the positioning plate having an escape groove for allowing movement of the conductive lead during termination thereof.

Wigby teaches a crimping apparatus with a guide member having an upwardly open guide groove (see guide 42 in Figs. 1 and 2 for example), while

Ota teaches the concept of using a positioning plate (25 in Fig. 1) to allow the tip portion of a component (wire) to be positioned at a suitable position before a crimping operation. The positioning plate has an escape groove U-shaped opening; see Figs. 1 and 2) whereby the wire (11) can move during a crimping operation.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to provide the apparatus of Nobuo with a guide member having an upwardly open guide groove, in view of the teachings of Wigby, in order to allow a conductive lead to be easily guided into an insertion hole of a terminal, and with a positioning plate as recited in claim 1, in view of the teachings of Ota, in order to allow a component (wire) to be positioned at a suitable position.

b. Regarding claim 8, see the corresponding rejection in part **3b** above.

c. Regarding claim 16, Nobuo discloses a recess disposed in the anvil to retain a collapsible terminal and a crimper disposed on a vertical ram (see Fig. 1), aligned with the recess. Clearly there must be a recess in the anvil, otherwise the terminal could move during the crimping process and produce a defective part.

To the extent the applicant disagrees, Wigby discloses such an anvil (see the corresponding rejection in part **3c** above).

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to provide the anvil of Nobuo with a recess, in view of the

teachings of Wigby, in order to retain a terminal on the anvil during the crimping process.

6. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nobuo, Ota, and Wigby, as applied to claim 1, in view of Baldyga (US5564613).

See the corresponding rejection in part 4 above.

Response to Arguments

7. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Livius R. Cazan whose telephone number is (571) 272-8032. The examiner can normally be reached on 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571)272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LRC 07/10/2006

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